



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,342	03/29/2004	Dong Tack Suh	51278/RAH/C1015	2547
23363	7590	09/23/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			FERGUSON, MICHAEL P	
			ART UNIT	PAPER NUMBER
			3679	
DATE MAILED: 09/23/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,342

Applicant(s)

SUH, DONG TACK

Examiner

Michael P. Ferguson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY ~~(30)~~ DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-12, 18, 19 and 38 is/are allowed.
- 6) ☒ Claim(s) 13-17, 20, 21, 23-32 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 22 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/30/04, 07/12/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: I.D.S. 02/25/05.

DETAILED ACTION

Claim Objections

1. Claim 19 is objected to because of the following informalities:

Claim 19 (line 1) recites "to claim 1". It should recite --to claim 2--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13,15-17,20-22 and 24-32 and 34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Konig & Meyer (DE 36 04 497).

As to claim 13, Konig & Meyer discloses a pull pin assembly, comprising:

a first rod or pole **1**, having a first hole;

a second rod or pole **9**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **11**, having a central hollow dimensioned to contain the first rod or pole;

a pull pin body integral with the main body and extending radially outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **13** slidably disposed in the space of the pull pin body to move from a first position extending into the central hollow through the first hole to a second position outside of the central hollow, the pull pin having a circumferential stop;

a pull pin plug **30** fit into the space of the pin body, the pull pin plug having a hollow dimensioned to slidably contain the pull pin; and

a biasing member **18** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole;

wherein the biasing member is disposed to bias the pull pin between the circumferential stop and the pull pin plug, and wherein the circumferential stop is dimensioned to prevent the pull pin from passing completely through the first hole in the first position (Figures 1-3).

As to claim 15, Konig & Meyer discloses a pull pin assembly wherein the first rod or pole **1** comprises an end and the main body **11** extends around the end of the first rod or pole (Figure 3).

As to claim 16, Konig & Meyer discloses a pull pin assembly wherein the circumferential stop is dimensioned to prevent more than a predetermined length of the pull pin from extending into the central hollow in the first position (Figure 3).

As to claim 17, Konig & Meyer discloses a pull pin assembly wherein the main body **11** comprises a resilient tab **22** (tab **22** made of a resilient material) having a boss **21** thereon extending into the central hollow to engage a second notch or hole **20** of the first rod or pole **21** (Figure 2).

Art Unit: 3679

As to claim 20, Konig & Meyer discloses a pull pin assembly, comprising:

a first rod or pole **1**, having a first hole;

a second rod or pole **9**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **11** having a central hollow dimensioned to contain the first rod or pole;

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **13** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole; and

a biasing member **18** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole,

wherein the main body is fixed against movement along the first rod or pole when the pull pin is in the second position (Figures 1-3).

As to claim 21, Konig & Meyer discloses a pull pin assembly wherein the first rod or pole **1** comprises a third notch or hole **20** and wherein the main body **11** is fixed against movement along the first rod or pole in the second position by a boss **21** extending between the main body and the first rod or pole (Figure 2).

Art Unit: 3679

As to claim 22, Konig & Meyer discloses a pull pin assembly wherein the boss **21** is formed on a resilient tab **22** (tab **22** made of resilient material) on the main body **11**, the boss extending into the central hollow to engage the third notch or hole **20** of the first rod or pole **1** (Figure 2).

As to claim 24, Konig & Meyer discloses a pull pin assembly wherein the main body **11** extends around an end of the first rod or pole **1** (Figure 3).

As to claim 25, Konig & Meyer discloses a pull pin assembly wherein the pull pin body is integral with the main body **11** (Figure 3).

As to claim 26, Konig & Meyer discloses a pull pin assembly comprising a pull pin plug **30** having a hollow dimensioned to slidably contain the pull pin **13**; and

a circumferential stop on the pull pin dimensioned to prevent more than a predetermined length of the pull pin from extending into the central hollow in the first position,

wherein the biasing member **18** is disposed to bias the pull pin between the circumferential stop and the pull pin plug **30** (Figure 3).

As to claim 27, Konig & Meyer discloses a pull pin assembly wherein the pull pin plug **30** is friction fit into the space of the pull pin body (Figure 3).

As to claim 28, Konig & Meyer discloses a pull pin assembly, comprising:

a first rod or pole **1**, having a first hole;

a second rod or pole **9**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **11**, having a central hollow dimensioned to contain the first rod or pole;

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **13** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole, the pull pin having a circumferential stop;

a pull pin plug **30** having a hollow dimensioned to slidably contain the pull pin;
and

a biasing member **18** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole;

wherein the biasing member is disposed to bias the pull pin between the circumferential stop and the pull pin plug, and wherein the circumferential stop is dimensioned to prevent more than a predetermined length of the pull pin from extending into the central hollow in the first position (Figures 1-3).

As to claim 29, Konig & Meyer discloses a pull pin assembly wherein the pull pin plug **30** is friction fit into the space of the pull pin body (Figure 3).

As to claim 30, Konig & Meyer discloses a pull pin assembly wherein the main body **11** is fixed against movement along the first rod or pole **1** when the pull pin **13** is in the second position (Figure 3).

Art Unit: 3679

As to claim 31, Konig & Meyer discloses a pull pin assembly wherein the main body **11** is fixed against movement along the first rod or pole **1** by a boss **21** extending between the main body and the first rod or pole (Figure 2).

As to claim 32, Konig & Meyer discloses pull pin assembly wherein the first rod or pole **1** comprises a third notch or hole **20** and wherein the boss **21** is formed on a resilient tab **22** (tab **22** mad of resilient material), the boss extending into the central hollow to engage the third notch or hole of the first rod or pole (Figure 2).

As to claim 34, Konig & Meyer discloses a pull pin assembly wherein the first rod or pole **1** extends vertically above (a lower end portion of) the second rod or pole **9** (Figure 3).

As to claim 35, Konig & Meyer discloses a pull pin assembly wherein the main body **11** extends around an end of the first rod or pole **1** (Figure 3).

As to claim 36, Konig & Meyer discloses a pull pin assembly wherein the pull pin body is integral with the main body **11** (Figure 3).

As to claim 37, Konig & Meyer discloses a pull pin assembly, comprising:

a first rod or pole **1**, having a first hole and an end;

a second rod or pole **9**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **11**, having a central hollow dimensioned to contain the first rod or pole, the main body extending around the end of the first rod or pole;

Art Unit: 3679

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **13** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole; and

a biasing member **18** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole (Figures 1- 3).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13-16, 20, 24-30 and 34-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Takayama (US 6,508,262).

As to claim 13, Takayama discloses a pull pin assembly, comprising:

a first rod or pole **11**, having a first hole;

a second rod or pole **10**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

Art Unit: 3679

a main body **5,12**, having a central hollow dimensioned to contain the first rod or pole;

a pull pin body integral with the main body and extending radially outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **30** slidably disposed in the space of the pull pin body to move from a first position extending into the central hollow through the first hole to a second position outside of the central hollow, the pull pin having a circumferential stop;

a pull pin plug fit into the space of the pin body, the pull pin plug having a hollow dimensioned to slidably contain the pull pin; and

a biasing member **31** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole;

wherein the biasing member is disposed to bias the pull pin between the circumferential stop and the pull pin plug, and wherein the circumferential stop is dimensioned to prevent the pull pin from passing completely through the first hole in the first position (Figures 1,3 and 4).

As to claim 14, Takayama discloses a pull pin assembly wherein the pull pin **30** comprises a circumferential tongue **34**, wherein the pull pin plug comprises a radial groove, wherein, the pull pin has a first engageable position in which the circumferential tongue is movable in the radial groove, and a second, disengaged position, wherein the pull pin is pulled against a biasing force of the biasing member **31** to come out of the

Art Unit: 3679

radial groove and rotated so that the circumferential tongue is biased against the pull pin plug (Figures 3 and 4).

As to claim 15, Takayama discloses a pull pin assembly wherein the first rod or pole **11** comprises an end and the main body **5,12** extends around the end of the first rod or pole (Figure 3).

As to claim 16, Takayama discloses a pull pin assembly wherein the circumferential stop is dimensioned to prevent more than a predetermined length of the pull pin **30** from extending into the central hollow in the first position (Figure 3).

As to claim 20, Takayama discloses a pull pin assembly, comprising:

a first rod or pole **11**, having a first hole;

a second rod or pole **10**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **5,12** having a central hollow dimensioned to contain the first rod or pole;

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **30** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole; and

a biasing member **31** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole,

wherein the main body is fixed against movement along the first rod or pole when the pull pin is in the second position (Figures 1,3 and 4).

As to claim 24, Takayama discloses a pull pin assembly wherein the main body **5,12** extends around an end of the first rod or pole **11** (Figure 3).

As to claim 25, Takayama discloses a pull pin assembly wherein the pull pin body is integral with the main body **5** (Figure 3).

As to claim 26, Takayama discloses a pull pin assembly comprising a pull pin plug having a hollow dimensioned to slidably contain the pull pin **30**; and

a circumferential stop on the pull pin dimensioned to prevent more than a predetermined length of the pull pin from extending into the central hollow in the first position,

wherein the biasing member **31** is disposed to bias the pull pin between the circumferential stop and the pull pin plug (Figure 3).

As to claim 27, Takayama discloses a pull pin assembly wherein the pull pin plug is friction fit into the space of the pull pin body (Figure 3).

As to claim 28, Takayama discloses a pull pin assembly, comprising:
a first rod or pole **11**, having a first hole;

Art Unit: 3679

a second rod or pole **10**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **5,12**, having a central hollow dimensioned to contain the first rod or pole;

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **30** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole, the pull pin having a circumferential stop;

a pull pin plug having a hollow dimensioned to slidably contain the pull pin; and

a biasing member **31** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole;

wherein the biasing member is disposed to bias the pull pin between the circumferential stop and the pull pin plug, and wherein the circumferential stop is dimensioned to prevent more than a predetermined length of the pull pin from extending into the central hollow in the first position (Figures 1,3 and 4).

As to claim 29, Takayama discloses a pull pin assembly wherein the pull pin plug is friction fit into the space of the pull pin body (Figure 3).

As to claim 30, Takayama discloses a pull pin assembly wherein the main body **5,12** is fixed against movement along the first rod or pole **11** when the pull pin **30** is in the second position (Figure 3).

As to claim 34, Takayama discloses a pull pin assembly wherein the first rod or pole **11** extends vertically above (a lower end portion of) the second rod or pole **10** (Figure 3).

As to claim 35, Takayama discloses a pull pin assembly wherein the main body **5,12** extends around an end of the first rod or pole **11** (Figure 3).

As to claim 36, Takayama discloses a pull pin assembly wherein the pull pin body is integral with the main body **5** (Figure 3).

As to claim 37, Takayama discloses a pull pin assembly, comprising:

a first rod or pole **11**, having a first hole and an end;

a second rod or pole **10**, having a second hole, the second rod or pole being slidably contained within the first rod or pole, so that the first hole is superimposable on the second hole;

a main body **5,12**, having a central hollow dimensioned to contain the first rod or pole, the main body extending around the end of the first rod or pole;

a pull pin body adjacent to the main body and extending outward from the central hollow, the pin body having a space therein extending into the central hollow;

a pull pin **30** disposed in the space of the pull pin body to move from a first position extending into the second hole to a second position not extending into the second hole; and

a biasing member **31** biasing the pull pin toward the first position to relatively lock the first rod or pole and the second rod or pole when the first hole is superimposed on the second hole (Figures 1,3 and 4).

Allowable Subject Matter

6. Claims 1-12,18,19 and 38 are allowed.
7. Claims 23 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 1, Konig & Meyer discloses the claimed pull pin assembly with the exception of comprising a main body having at least one resilient tab, the resilient tab being cut out from the main body and having a boss thereon extending into the central hollow to engage the second notch or hole of the first rod or pole.

As to claim 23, Konig & Meyer discloses the claimed pull pin assembly with the exception of wherein the resilient tab is cut out from the main body.

As to claim 33, Konig & Meyer discloses the claimed pull pin assembly with the exception of wherein the resilient tab is cut out from the main body.

As to claim 38, Konig & Meyer discloses the claimed pull pin assembly with the exception of comprising a main body having two resilient tabs, the resilient tabs being cut out from substantially opposite sides of the main body and having bosses thereon, each boss extending into the central hollow to engage a different one of the second

Art Unit: 3679

notch or hole and the third notch or hole and to fix the main body against movement along the first rod or pole.

There is no teaching or suggestion, absent the applicants' own disclosure, for one having ordinary skill in the art at the time the invention was made to modify the pull pin assembly as disclosed by Konig & Meyer to have the above mentioned elemental features.

Conclusion

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to pull pin assemblies:

Takahashi (US 3,780,974) and Hedman (US 1,044,523) are cited for pertaining to assemblies comprising a first rod, a second rod, a main body, a pull pin body, a pull pin and a biasing member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3679

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MPF
09/13/05



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600

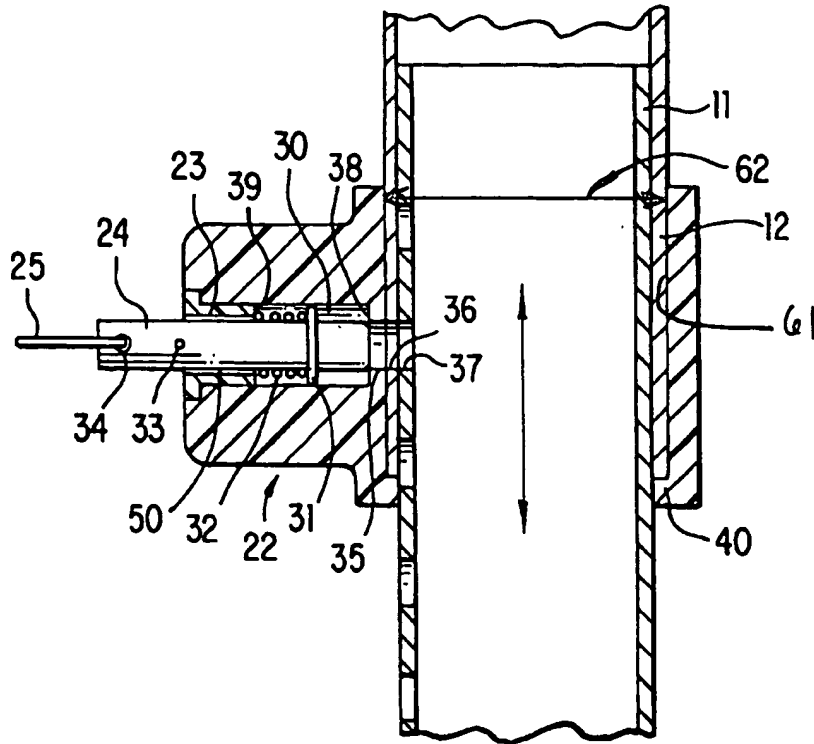


FIG. 3

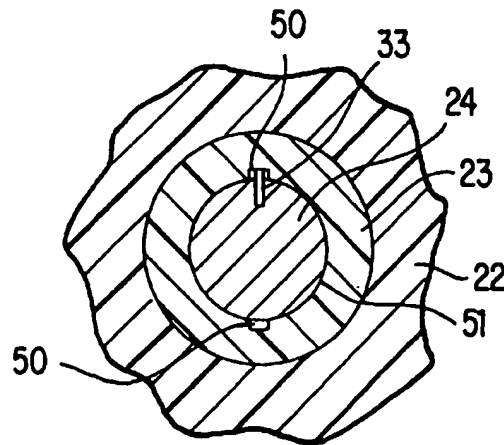


FIG. 5

APPROVED.
 MPA
 9/13/05